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A NEW SPECIES OF THE GENUS *CHORTHIPPUS* (ORTHOPTERA, ARCYPTERIDAE) FROM NORTH OF XINJIANG UIGUR AUTONOMOUS REGION OF CHINA

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Abstract In this paper, a new species of *Chorthippus* (Orthoptera, Arcypteridae), namely *C. buerjinensis*, is described from the North of Xinjiang Uigur Autonomous Region of China. The type specimens of the new species are deposited in the Institute of Zoology, Shaanxi Normal University.

Key words Orthoptera, Arcypteridae, *Chorthippus*, new species

Chorthippus Fieber, 1852 is a large genus of Arcypteridae, with 208 known species in the world (Eades and Otte, 2009). Up to now, there are about 109 species in China (Zheng *et al*, 2009). Most of them are distributed in North China and the others are distributed in Central, West, East and Southwest China. Up to date only 14 species are recognized within the genus *Chorthippus* from Xinjiang Uigur Autonomous Region of China (Zheng *et al*, 2009). According Xia and Jin (1982), the genus *Chorthippus* in China was divided into four subgenera: *Megaulacobothrus*, *Chorthippus*, *Glyptobothrus* and *Altichorthippus*. The subgenus *Glyptobothrus* differs from other groups in the genus *Chorthippus* in: 1) lateral carinae of pronotum in both sexes angular or arcuately curved in prozona, evidently expanded in metazona; 2) elytron and hindwing in both sexes developed, apex of male elytron usually extending to or beyond end of hind femur; if extending to or slightly not to abdominal extremity, then hindwing large and wide, not distinctly shorter than but almost equal to elytron in length; end of hind femur pale of light brown; apex of female elytron usually extending beyond sixth abdomere. A new species of *Chorthippus* is described in this paper, which belongs to the subgenus *Glyptobothrus* in this paper. The type specimens are deposited in the Institute of Zoology, Shaanxi Normal University.

Chorthippus buerjinensis **sp. nov.** (Figs. 1-9)

Male (Figs. 1-2, 5). Head slightly higher than pronotum. Apex of vertex acutangular. Fastigial foveolae narrow and long, length about 3.4-3.8 times as its width. Frons oblique in profile, frontal ridge flat and concaved at median ocellus, lateral margins of frontal ridge nearly parallel before median ocellus and gradually widened toward clypeus. Antennae filiform, surpassing basal part of hind femur, length of middle segment about 2 times as its width. Eye oblong oval, longitudinal diameter about 1.3-1.5 times as its horizontal diameter and about 1.2-1.5 times as subocular furrow. Pronotum tectiform, its anterior margin nearly straight, posterior margin protruded obtusely; lateral carinae arcuately curved in prozona, widest between lateral carinae 2.4 times as narrowest, median carina and lateral carinae obvious and incised by posterior transverse suclus with a clear cut. Pronotum with weak fore and median transverse sulci, posterior sulcus of pronotum situated before middle, metazona 1.1-1.2 times as long as prozona. Length of lateral lobes of pronotum almost as its height, posterior angle obtusely angular. Interspace of mesosternum oblong, width 1.2 times as its length, metasterenum lobes separated. Elytron and hind wing developed, surpassing to end of hind femur. Elytron (Fig. 5) narrow and long, tip rounded, length 5.6-6.1 times as its width; precosta area narrow and long with a weak intercalary vein, widest costal area 1.3-1.5 times as widest medial area; medial area about equal to cubital area. Hind wing nearly equal to elytron in length. Hind femur well proportioned with 130 stridulatory pegs on inner side, its length 5.6 times as its width. Apex of knee lobe rounded. Hind tibia with 16 spines on outer side and 14 spines on inner side, without outer apical spine; first segment of hind tarsus distinctly longer than third segment. The arolium between claws larger, reaching half length of claws. Tympanic cavity widely oval, length 3 times as its width. Epiproct triangular, basal part with median

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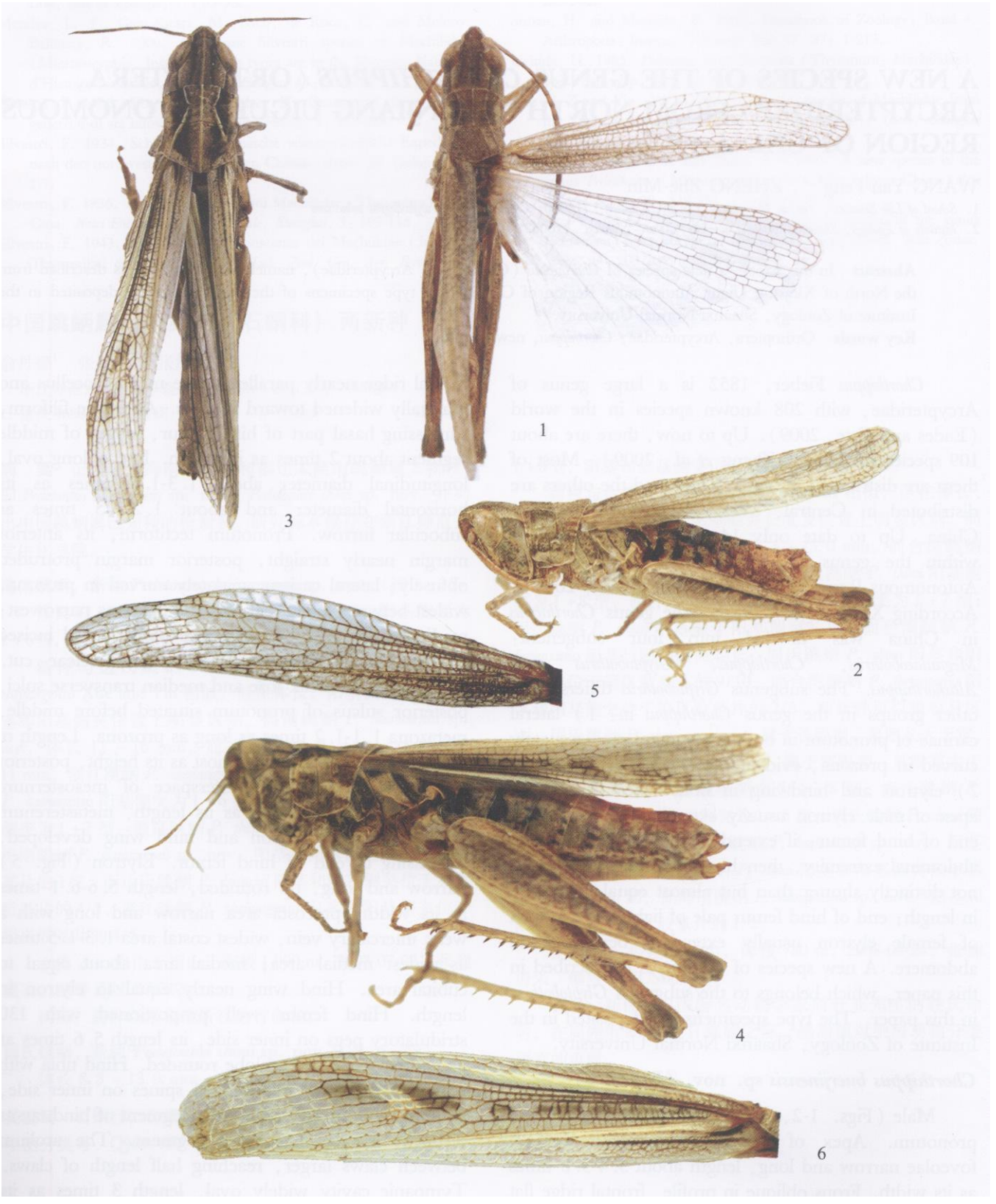
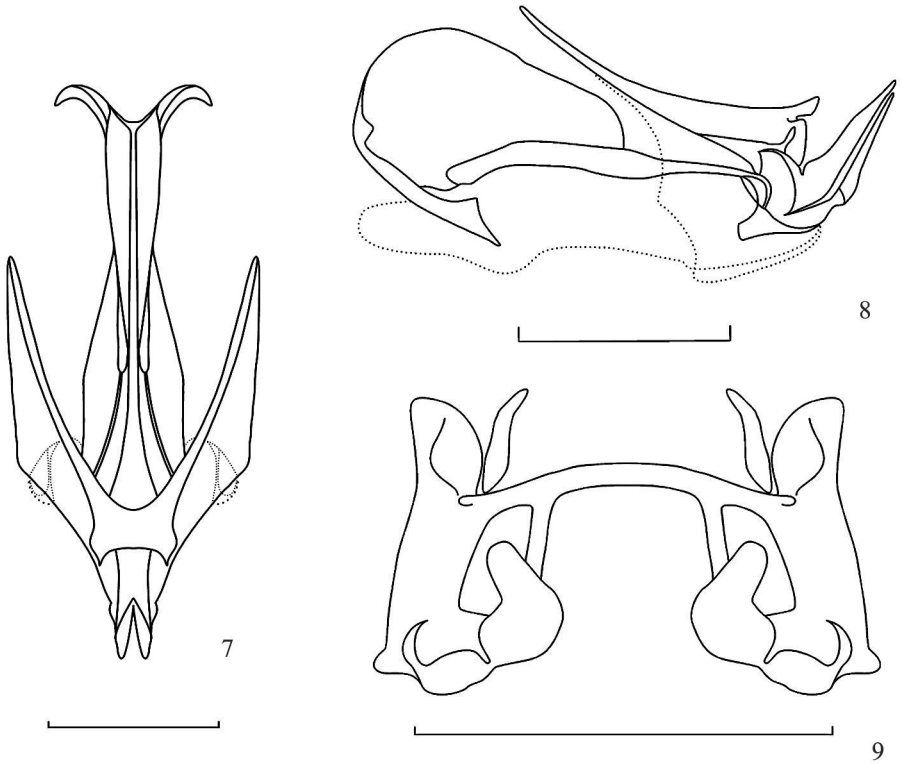


Figs 1-6 *C. buerjinensis* sp. nov. 1. Body of male, dorsal view. 2. Body of male, lateral view. 3. Body of female, dorsal view. 4. Body of female, lateral view. 5 Elytron of male. 6. Elytron of female.

longitudinal groove. Cerous long and conical, apex surpassing or extending to apex of epiproct. Subgenital plate long and conical, with longitudinal groove. Posterior margin of subgenital plate with angularly projection in middle part. Epiphallus bridge-shaped (Fig. 9), anchorae flexed, pointed, inner lophi



Figs 7-9. *C. buerjinensis* sp. nov. 7. Phallic complex, dorsal view. 8. Phallic complex, lateral view. 9. Epiphallus, dorsal view. Scale bars= 1 mm.

trapezoidal, outer lophi bilobate with hook-like tip. Phallic complex illusrated as in Figs 7-8, apical valves of penis conical with pointed apex, not reaching valves of cingulum. Posterior margin of zygoma with broad median emargination.

Coloration. Body yellowish brown. Back of eye with black postocular bands. The lateral carinae of pronotum with or without pale white, X-shaped maculation. Elytron hyaline, slightly dark between precosta area and costal area. Hind femur dark brown with black oblique stripe in basal part of inner side. Upper geniculars lobe dark, yellowish brown in lower side and inner side. Hind tibia yellowish brown or black brown.

Female (Figs. 3-4, 6). Fastigial foveolae narrow and long, length about 3.3 times as its width. Antennae short, reaching posterior margin of pronotum. Lateral carinae of pronotum arcuately curved in prozona, widest between lateral carinae 2.3 times as narrowest; median carina and lateral carinae obvious and incised by posterior transverse sucluswith a clear cut. Posterior sulcus of pronotum situated before middle, metazona 1.4 times as long as prozona. Elytron narrow and long (Fig. 6), length 5.3 times as its width; costal area narrow, widest of costal area about equal to widest of medial area; medial area about 1.3-1.5 times as wide as cubital area. Tympanic cavity widely oval, length 3 times as its width. Epiproct triangular. Cercus short conical. Subgenital plate thick and short, with longitudinal groove. Posterior margin of subgenital plate with angularly projection in middle part.

Coloration. Body yellowish brown. Back of eye with broadly black postocular band. Elytron yellowish brown, slightly dark between precosta area and costal area; costal area with a pale white longitudinal line. Hind femur dark brown with black oblique stripe in basal part of inner side. Hind tibia yellowish brown or blackish brown. Other data of coloration are the same as male.

Mearurement. Length of body: ♂ 13.2-15.3 mm, ♀ 19.5 mm; length of pronotum: ♂ 2.5-2.8 mm, ♀ 3.5 mm; length of elytron: ♂ 12.1-14.1 mm, ♀ 15.9 mm; length of hind femur: ♂ 8.8-9.8 mm, ♀ 11.8 mm.

Holotype ♂, Buerjin County (86°46′E, 47°40′N; alt. 480-531 m), Xinjiang Uigur Autonomous Region of China, 7 Aug. 2005, coll. by WANG Yan-Feng, YANG Liang and ZHANG Ling. Paratypes: 4 ♂♂, 1 ♀, other data as holotype.

The new species is allied to *C. longdongensis* Zheng, 1984 and the major difference between them is listed in Table 1.

Etymology. The specific name is a noun in apposition, based on the type locality.

Table 1 A character comparision between C. buerjinensis **sp. nov. and** C. longdongensis **Zheng**

Characters	*C. buerjinensis* sp. nov.	*C. longdongensis* Zheng
Metazona of pronotum	1.1-1.2 times as long as prozona in male and 1.4 times as long as prozona in female	0.8 times as long as prozona in male and 0.7 times as long as prozona in female
Costal area	1.3-1.5 times as wide as medial area in male	About equal to medial area in male
Medial area	About equal to cubital area in male and 1.3-1.5 times as wide as cubital area in female	1.4 times as wide as cubital area in male and 2.6 times as wide as cubital area in female
Length of tympanic cavity	3 times as its width in male and female	2 times as its width in male and female
Epiphallus	Outer lophi bilobate with hook-like tip	Outer lophi rounded without hook-like tip
Phallic complex	Apical valves of penis conical with pointed apex, not reaching valves of cingulum.	Apical dorsal valves of penis conical with rounded apex, reaching valves of cingulum.

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新疆北部雏蝗属 (直翅目, 网翅蝗科) 一新种

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摘 要 记述采自新疆北部网翅蝗科雏蝗属 *Chorthippus* 1新种, 即布尔津雏蝗 *Chorthippus buerjinensis* sp. nov.。模式标本保存于陕西师范大学动物研究所标本室。

布尔津雏蝗, 新种 Chorthippus buerjinensis **sp. nov.** (图 1~9)

新种近似于陇东雏蝗 *C. longdongensis* Zheng, 1984, 与后者的主要区别为: 前胸背板沟后区长为沟前区长的 ♂ 1.1~1.2倍, ♀ 1.4倍; ♂前缘脉域最宽处为中脉域宽的 1.3~1.5倍, 中脉域几乎与肘脉域等宽, ♀ 中脉域宽为肘脉域宽的 1.3~1.5倍; 鼓膜孔 ♂、♀ 长为宽的 3倍; 阳茎基背片外冠突二分裂状具弯钩, 阳茎复合体的阳茎端瓣顶端细尖, 不超过色带瓣顶端。

正模 ♂, 新疆布尔津, 海拔 480~531m, 2005-08-07, 王延峰, 杨亮, 张陵采。副模: 4♂♂, 1♀, 同正模。

词源: 新种种名以正模的产地的地名拟名。

关键词 直翅目, 网翅蝗科, 雏蝗属, 新种.

中图分类号 Q969.265.1